ABSTRACT OF THE DISCLOSURE

SYSTEM FOR TRANSMITTING LOCAL AREA NETWORK (LAN) DATA FRAMES

A data transmission system, which includes multiple local area networks (LANs) coupled by a hub via multiple LAN adapters and an ATM crossbar switch coupling all LAN adapters. At least a requesting LAN transmits LAN data frames to at least a destination LAN. The LAN data frames are converted into concatenated slots of the same size and transmitted through the ATM crossbar switch by the requesting LAN. The requesting LAN adapter includes a control logic for transmitting a plurality of request signals (REQ) to the ATM crossbar switch, each of them being associated with a destination LAN, and the ATM crossbar switch comprises a scheduler for transmitting grant signals (GNT) associated with the requests enabling the requesting LAN adapter to transmit LAN data frames to the destination LANs. The grant signals are transmitted by the destination LAN in an order depending upon a predetermined algorithm that controls the scheduler regardless of the order the requests are transmitted by the requesting LAN adapter.